

MISSOURI DEPARTMENT OF CONSERVATION



December 2011/January 2012

EXPLORE

adventures in nature



CELEBRATE 75 YEARS
OF CONSERVATION!



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We recycle. You can, too!
Share *Xplor* with friends.

ON THE COVER
red-bellied woodpecker



At *Xplor*, we never miss a birthday. We like the pointy hats, the games and the cake—especially the cake. So when we found out the Missouri Conservation Department was turning 75, we decided to throw a party.

Conservation is a big word for a simple idea. It means taking care of nature so kids like you—and your kids and their kids and all who come after—can explore a forest, fish for smallmouth bass in a clear Ozark stream or watch an eagle soar above a foggy marsh. It means leaving nature better off than when you found it.

This special issue of *Xplor* is your invitation to join our conservation celebration. (Don't worry, the next *Xplor* will look like what you've come to expect—with a few fantastic surprises.) And, though we're the ones having a birthday, you're the one who gets the goodies. So blow out the candles, cut the cake and flip through these pages for 75 things you can do, see, hear, smell and taste because of conservation.

Happy birthday to us—and to you!



HERE ARE 75 REASONS TO CELEBRATE.



TALK TO A TURKEY.

The future was once murky for Missouri's wild turkeys. Overhunting and habitat destruction in the early 1900s had whittled turkey numbers down to 2,500 birds. In the 1950s, biologists began moving turkeys from areas where they were plentiful to areas where they were scarce. Thanks to these efforts, Missouri now has half a million turkeys, giving hunters and wildlife watchers something to gobble about.

2

HUG A TREE.

Bet you can't get through today without using something that comes from trees. If you're reading this magazine, you've already lost—paper comes from trees. So does the lumber in your house, the circuit board in your smartphone and the diapers on your baby brother. Conservation Department foresters strive to ensure Missouri's forests provide homes for animals, places to hike and hunt, and a steady supply of trees to make thousands of great things.



WOOD
is used to make furniture, guitars, drums, baseball bats, baskets, bird houses, tool handles and paddles.

SAP
from trees is used in maple syrup, crayons, chewing gum and rubber.

WOOD PULP

is used to make paper, cardboard, paper plates, paper sacks, board games, napkins, toilet paper, tissues, diapers and—oh, yeah—*Xplor*.

CELLULOSE
from trees is used to make computer chips, plastics and soap.

Save an Endangered Species.

3



INDIANA BAT

Indiana bats raise their babies under the loose, scaly bark of trees such as hickories.

Endangered species are living things that are *in danger* of disappearing from a place forever. Check out these strange-but-true facts about five of Missouri's endangered animals the Conservation Department is trying to save. Then, visit mdc.mo.gov/node/4067 to learn how you can help.

4



EASTERN MASSASAUGA RATTLESNAKE

These small, venomous rattlesnakes often spend winter hibernating in crayfish burrows.

5



PALLID STURGEON

A sturgeon can extend its rubbery mouth like a Slinky to suck up prey from muddy river bottoms.



SPOTTED SKUNK

A spotted skunk often does a handstand and walks around on its front paws before spraying its stinky scent.

6



GREATER PRAIRIE CHICKEN

To attract a mate, male prairie chickens dance by quickly stamping their feet. They also make booming calls that can be heard more than a mile away.

7

CANOE A WILD OZARK STREAM.

Once upon a time, some people wanted to build dams on Missouri's wildest, prettiest rivers. The Conservation Department joined others to say "no way." Missourians listened, and voted to keep the streams dam-free.





SLEEP UNDER THE STARS.



More than 1,000 conservation areas dot Missouri, and most offer a scenic place to pitch a tent. Find a nearby campsite at mdc.mo.gov/atlas.



SIGHT IN YOUR GUN AT A SHOOTING RANGE.

If your sharpshooting needs sharpening, ask an adult to take you to a Conservation Department shooting range. For details, aim your browser at mdc.mo.gov/node/6209.

Superman wears an "S."
Batman has a cool bat symbol.
Connect the holes to reveal Conservation's heroic logo.

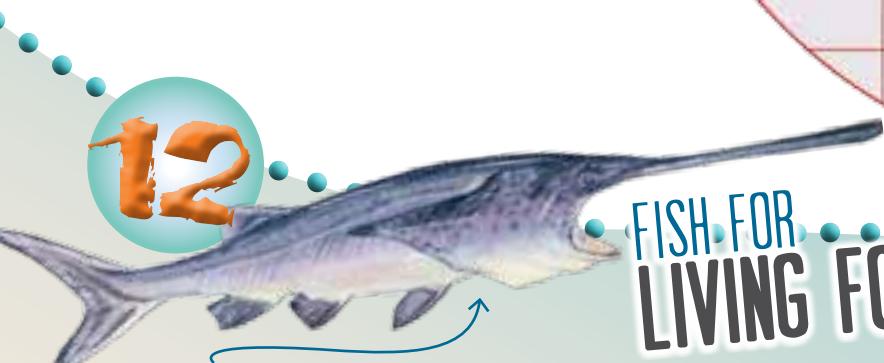


BREATHE FRESH AIR; DRINK CLEAN WATER.

A forest the size of a football field makes enough oxygen to keep 18 people breathing for a whole year. Wetland plants absorb tons of dirt and pollution, helping filter the water we drink. Protecting and restoring these and other habitats has been the Conservation Department's number one job for the past 75 years.



FISH FOR LIVING FOSSILS.



Paddlefish began swimming behind their spoon-shaped schnozes nearly 50 million years before dinosaurs arrived. But about 100 years ago, pollution and overfishing caused paddlefish numbers to sink, and later, dams in big rivers blocked parent fish from swimming upstream to lay eggs. Paddlefish might have followed Tyrannosaurs to extinction if a team of Conservation Department biologists hadn't figured out how to raise paddlefish in fish hatcheries. Thanks to their efforts, you can still catch these living fossils today.



Create habitat for wildlife.

Whether you want to build a bat house, plant a backyard prairie or help your parents increase wild turkeys on their farm, the Conservation Department has information and people who can help you create habitat for wildlife. Plan your *habi-tactics* at mdc.mo.gov/landwater-care.





Visit a Nature Center.

Whether you want to hike a wildflower-laced trail, tickle a box turtle, climb to the top of a fire tower or learn how to call in a turkey, the Conservation Department's nature centers offer an adventure each time you visit. Here are five to explore throughout the state.





WATCH EAGLES SOAR.



Thirty years ago, bald eagles

were endangered because of

habitat loss, illegal shooting and pollution.

The Conservation Department helped eagles claw their way back, and today thousands visit the Show-Me State every winter. For a close-up look at our national symbol, attend Eagle Days. There you'll get eye-to-eye with captive eagles and peer through telescopes to watch wild eagles soar. For details, flap over to mdc.mo.gov/node/3478.



LEARN AN OUTDOOR SKILL.

Nature is awesome, and we want to help you experience it. That's why the Conservation Department employs writers, naturalists, outdoor skills specialists and others to teach you how to catch catfish, use a compass or cook a Dutch-oven cobbler that will make your taste buds turn cartwheels.



INGREDIENTS

- 1 package yellow cake mix
- 2 cans of fruit pie filling
- 1 can of lemon-lime soda
- 4 tablespoons of butter

GEAR

- A 12-inch Dutch oven can cook nearly anything, including a killer cobbler.
- Extra-long kitchen tongs are essential for moving red-hot coals or charcoal.
- Use a lid lifter to carefully remove a hot Dutch-oven lid.
- Wear heavy leather gloves to protect your hands.
- An aluminum poultry pan (look for them at farm stores) helps hold coals in place and protects the ground, but it isn't essential.
- Lining your oven with heavy-duty aluminum foil (not shown) makes cleanup a breeze.

INSTRUCTIONS

Let a campfire burn down to coals or use charcoal. Line the inside of the Dutch oven with foil. Pour in cake mix, pie filling and soda, and stir gently. Flake butter on top, and put the lid on the oven. Using gloves and tongs, and with an adult's help, space 8 coals (or charcoal briquettes) in a circle and set the oven on top of them. Place 16 coals on the oven's lid as shown in the illustration above. Be careful! Bake for 30 minutes, then lift the oven off the bottom coals but leave the top coals on. Bake 15 minutes more, or until the cake is golden-brown. Let the cobbler cool 10 minutes—if you can wait that long!



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KEEP Rock Snot OUT OF MISSOURI.

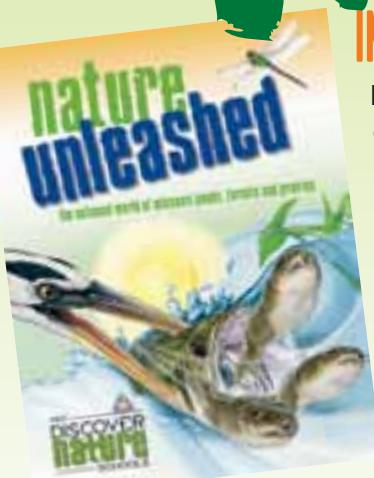
Invasive plants and animals, such as rock snot, multiply quickly and take homes away from other plants and animals. Learn how you can keep these unwanted invaders away by visiting

mdc.mo.gov/node/4086.



22

UNLEASH Nature IN YOUR CLASSROOM.



Imagine a classroom where birds chirp, desks are swapped for rocks along a stream, binoculars replace white boards, and where you sharpen nature-watching skills more than pencils. Sound too cool for school? It's not. Just ask your teacher to visit mdc.mo.gov/node/9019 and check out *Nature Unleashed*, a new school program by the Conservation Department.

23

ENROLL IN HUNTER ED.



MDC DISCOVER nature

AT A LOCAL EVENT.

Want to go on a nighttime owl prowl, build a bird feeder or learn more about Missouri's wild predators? The Conservation Department offers thousands of cool events across the state every year. Check out the three below, then visit mdc.mo.gov/events for others.

24

OWL PROWL
at Rockwoods Reservation,
St. Louis
December 9, 6:30 to 8 p.m.
call 636-458-2236

25

ORNAMENTS FROM NATURE
at the Anita B. Gorman
Conservation Discovery
Center, Kansas City
December 17, 10 a.m. to 2:30 p.m.
call 816-759-7300

26

NATURE TRIVIA NIGHT
at the Cape Girardeau
Conservation Nature Center
January 12, 5 to 7 p.m.
call 573-290-5218

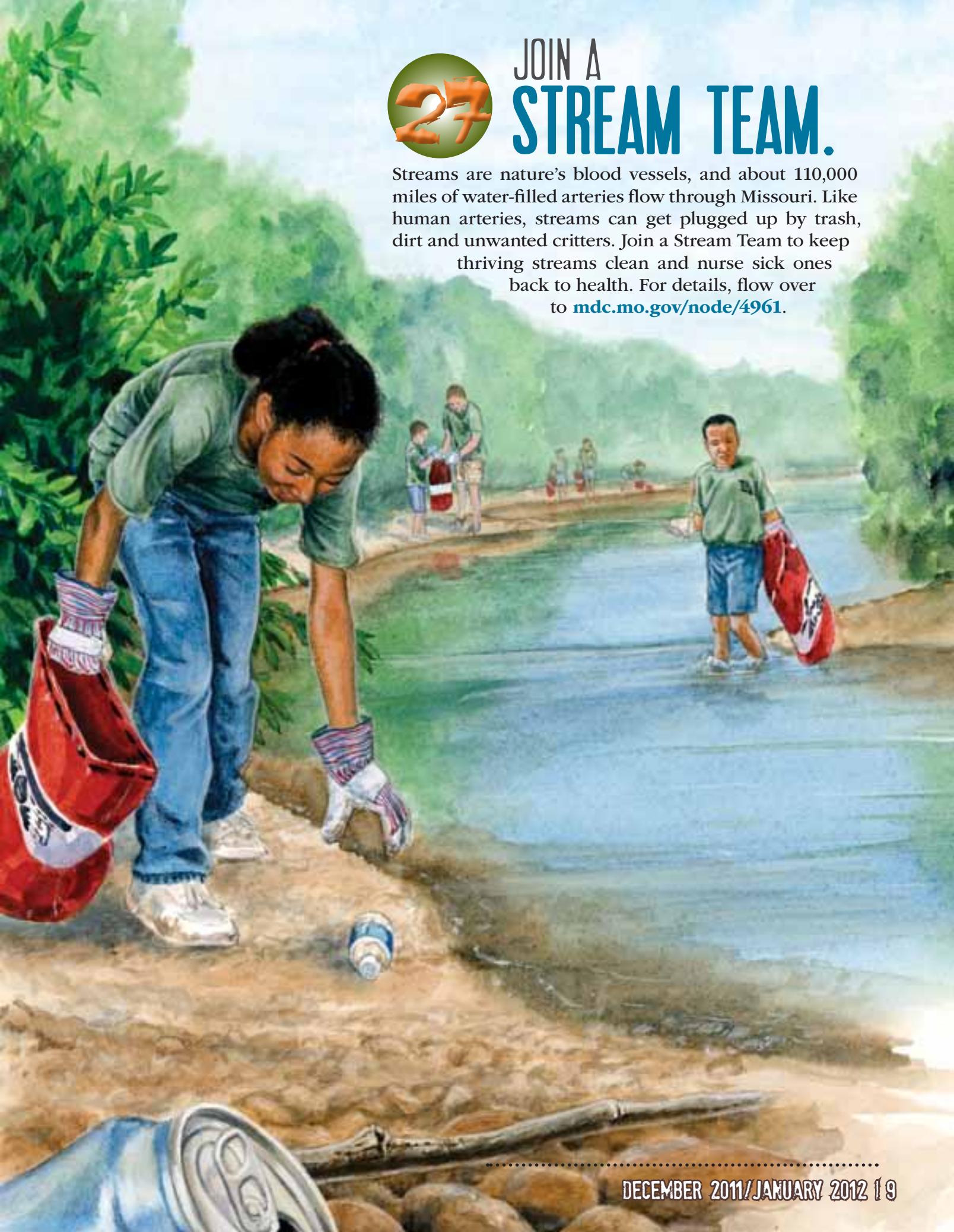
Since 1957, the Conservation Department and countless volunteer instructors have taught more than a million people how to hunt safely. This keeps Missouri's woods safe not only for hunters, but also for hikers, birdwatchers and everyone else. If you enjoy hunting, enroll in a hunter-education course. Learn more at mdc.mo.gov/node/3477.





JOIN A STREAM TEAM.

Streams are nature's blood vessels, and about 110,000 miles of water-filled arteries flow through Missouri. Like human arteries, streams can get plugged up by trash, dirt and unwanted critters. Join a Stream Team to keep thriving streams clean and nurse sick ones back to health. For details, flow over to mdc.mo.gov/node/4961.



28

PARTICIPATE IN A YOUTH HUNT.

If you're 6 to 15 years old, the Conservation Department offers special turkey, deer, duck, pheasant and quail hunts just for you. Get details at mdc.mo.gov/hunting-trapping.



30

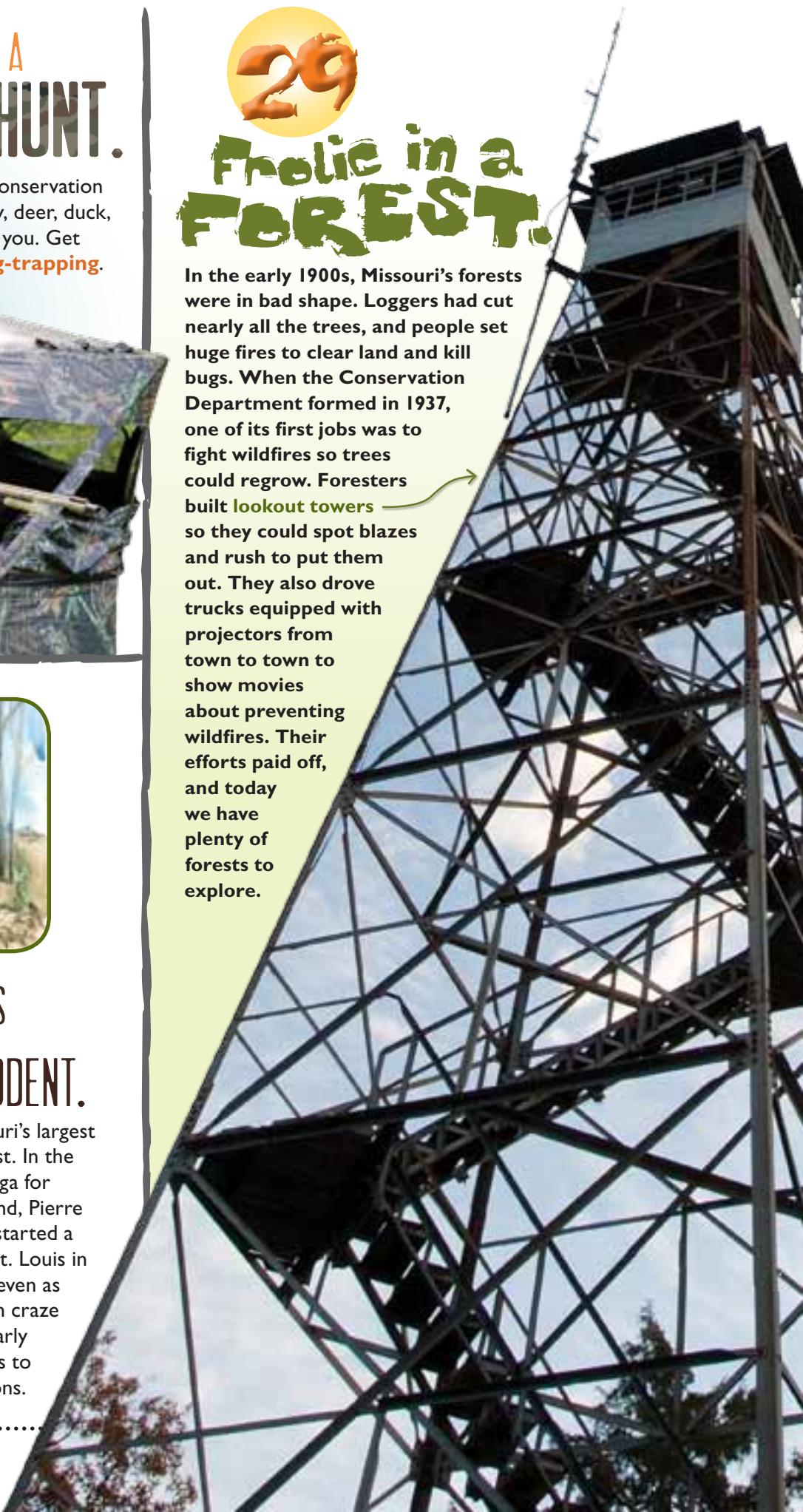
SPOT MISSOURI'S LARGEST RODENT.

If it weren't for beavers—Missouri's largest rodent—St. Louis might not exist. In the 1600s, people in Europe were gaga for beaver-fur hats. To supply demand, Pierre Laclede and Auguste Chouteau started a fur-trading post at present-day St. Louis in 1764. People flocked to the city even as beavers grew scarce. The fashion craze finally fizzled out, but it took nearly 75 years of sensible trapping laws to restore healthy beaver populations.

29

Frolic in a FOREST.

In the early 1900s, Missouri's forests were in bad shape. Loggers had cut nearly all the trees, and people set huge fires to clear land and kill bugs. When the Conservation Department formed in 1937, one of its first jobs was to fight wildfires so trees could regrow. Foresters built lookout towers so they could spot blazes and rush to put them out. They also drove trucks equipped with projectors from town to town to show movies about preventing wildfires. Their efforts paid off, and today we have plenty of forests to explore.



ASK AN EXPERT.

31

Q: WHICH REPTILE LIVES THE LONGEST?

A: Black rat snakes can live for 20–25 years in the wild. Hellbenders—large, aquatic salamanders—are capable of reaching their 35th birthday. But neither comes close to the lifespan of a three-toed box turtle. These small, land-loving turtles typically survive 50–80 years in the wild, and some even live past 100!



JEFF BRIGGLER,
HERPETOLOGIST

(hur-peh-tol-o-jist) noun—
A scientist who studies reptiles and amphibians

32

Q: AN OWL HAS BEGUN HOOTING OUTSIDE MY WINDOW EVERY NIGHT. WHAT KIND IS IT?

BECKY MATNEY, NATURALIST

(nach-ur-ah-list) noun—
A person who studies and teaches others about nature



A: It's probably either a barred owl or a great horned owl. Listen closely when it hoots. Great horned owls make a statement when they hoot: *Hoo hoo hoo*, *hooooo*, *hoooo*. Barred owls ask a question: *Hoo hoo hoo hoo*? *Hoo hoo hoo hoo ah*? A barred owl's call is often described as "Who cooks for you? Who cooks for you all?"



Great horned owl

33

Q: WHERE DO BUGS GO IN WINTER?

A: Some insects die when it freezes, but most are well-adapted to cold temperatures. Many spend winter living in plants, in leaves piled up on the forest floor or underground. Wherever they hole up, most go into a dormant state called diapause (*die-ah-pawz*). This is like a deep sleep, except the insect's cells quit working for a bit. When it gets warmer, the insects wake up and their cells "turn back on."



TIM SMITH,
OMBUDSMAN

(ahm-buds-man) noun—
A person employed by an agency to answer questions from the public and investigate complaints

34

CATCH A RAINBOW.

Each year, the Conservation Department stocks more than a million rainbow trout in rivers and lakes across Missouri. Find a place to hook a few at mdc.mo.gov/node/5603.



35

FLUSH A COVEY OF QUAIL.

In the winter, **bobwhite quail**—chubby little birds who whistle their name—huddle together in coveys. Step unexpectedly into the middle of a covey, and your heart will stutter as quail burst noisily into the air around you. Quail habitat has disappeared in recent decades. To ensure quail don't disappear also, the Conservation Department is working hard to bring their habitat back.



36

PLANT A TREE.

Every fall, workers at the George O. White State Forest Nursery give squirrels a run for their money—er, nuts. Nursery workers collect tons of nuts and other seeds to grow the 4 million tree seedlings they ship to landowners every year. The nursery even provides free Arbor Day trees to Missouri fourth graders. To order trees or learn more about the nursery, plant this in your Web browser: mdc.mo.gov/node/3986.

COMPARE YOUR FOOTPRINTS TO A BLACK BEAR'S.

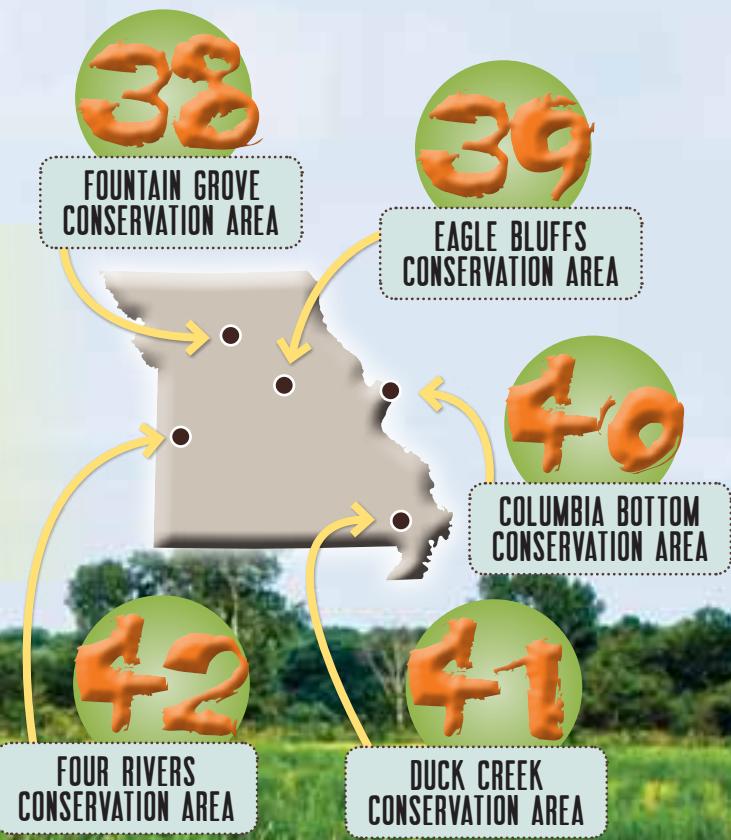


When Lewis and Clark paddled through Missouri in 1804, our forests were crawling with black bears. But unregulated logging left many bears homeless, and unregulated hunting wiped out almost all the rest. Nowadays, thanks to smart forest management and hunting laws, bears are making a comeback. Although bears are shy and your chances of seeing one are slim, it pays to be bear aware. Learn how at mdc.mo.gov/node/3506.

37

wander Around a Wetland

Any time of year is a good time to meander through the marsh muck, but for a truly epic experience, visit a wetland in early spring. That's when thousands of ducks, geese and other water birds migrate north, making pit stops at Missouri's wetlands to rest and refuel. The Conservation Department manages more than 110,000 acres of wetlands. To gander at some ganders, check out these five.



Take a Walk in the Woods.

Whether looking for springtime morel mushrooms, hunting summer squirrels or simply hiking through a rainbow of fall colors, there's never a bad season or reason for a walk in the woods. Forests cover more than a third of Missouri, and the Conservation Department takes care of nearly 400,000 acres across the state. Here are five conservation areas with towering trees to explore.





THANK A CONSERVATION AGENT.

Fishing and hunting rules keep animal populations healthy and people safe. They also ensure everyone gets a fair share of game and fish. Conservation agents make sure people follow the rules. So if you meet an agent, be sure to say thanks.



WATCH A GOOSE GOSLING HATCH.

Resident Canada geese—those that don't migrate but live in Missouri all year—were once rare. In the 1950s, a Conservation Department biologist coaxed a few geese to nest in metal tubs at a wetland near Kansas City. Their babies stayed put and raised families of their own. The homebody geese multiplied, and today you can see fuzzy goslings nearly anywhere in Missouri.



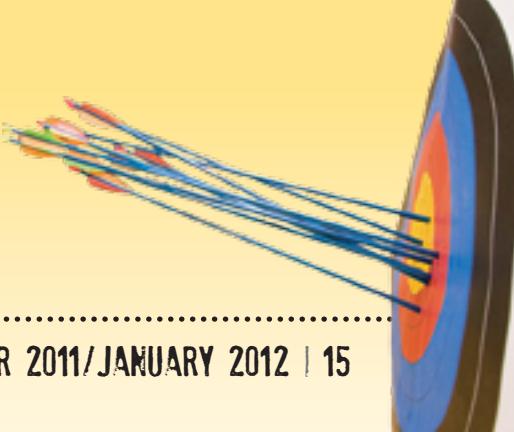
WATCH A RIVER OTTER BELLY-SLIDE DOWN A SNOWBANK.

Otters play more than nearly any other critter. Just watch one belly-slide down a snowbank. But life wasn't always fun for Missouri's otters. Their numbers had dwindled to fewer than 100 by 1980. This spurred biologists to release otters from Louisiana into Missouri's rivers and wetlands. The otters liked their new homes, and today otters frolic throughout the state.



LET AN ARROW FLY IN GYM CLASS.

Picture this: Your classmates are stretched out in a line, bows drawn, arrows pointed at targets posted at the far end of your school's gym. Sound interesting? Then ask your teacher to check out the Missouri National Archery in the Schools Program at mdc.mo.gov/node/3409.



DISCOVER NATURE'S DEEPEST, DARKEST SECRETS.

To take care of nature, you must understand how it works. Conservation Department biologists conduct dozens of studies each year to learn things such as what otters eat, how catfish raise their babies, and how fires help prairies. Here are three studies biologists are working on now.

52



TRACK BLACK BEARS.

With black bears on the comeback in Missouri, biologists hanker to learn more about their habits. To do so, researchers use donuts and other treats to lure hungry bears into traps. Once the bears are tranquilized, biologists fit the bears with special collars to track their movements. By following the bears about their day-to-day business, researchers hope to learn how many bears live in Missouri, what habitats they use and where they spend the winter.

53



WATCH TREES GROW.

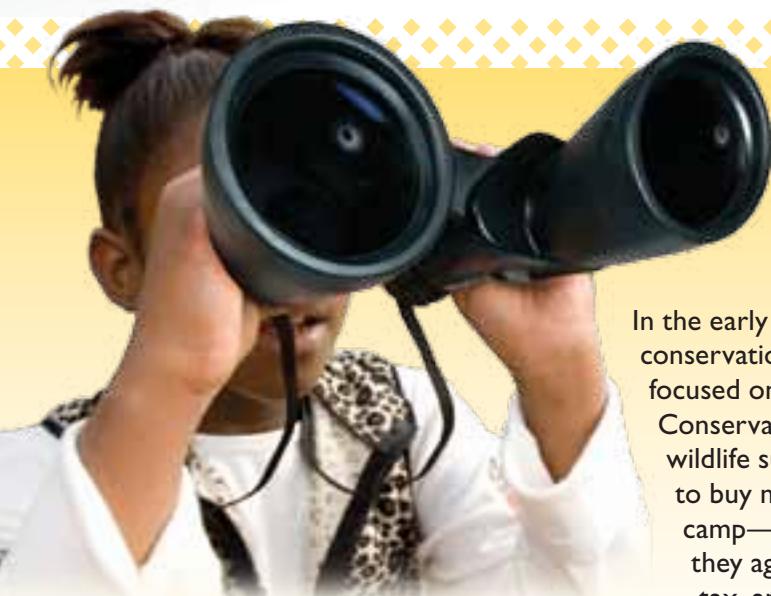
How does logging affect plants and animals in a forest? That's the question biologists asked. But because trees grow slowly, they needed lots of time to get answers. The Missouri Ozark Forest Ecosystem Project was launched in 1990 and will last 100 years. But don't worry. Results are already trickling in, helping researchers understand how logging affects everything from towering oaks to tiny bugs.

54



RAISE BABY HELLBENDERS.

Hellbenders have a funny name, but there's nothing funny about how quickly they're disappearing from Missouri's streams. Habitat destruction, pollution and diseases have been hard on Missouri's largest amphibians. To boost their numbers, biologists are working to learn how to raise hellbenders in zoos and fish hatcheries. This way, when hellbenders are born in captivity, they can be released into the wild to multiply.



55

WATCH BIRDS—OR ANY OTHER CRITTER.

In the early years, the main thing that paid for conservation was selling hunting and fishing permits, so biologists focused on animals that could be hunted or fished for. But in 1976, the Conservation Department promised to spend more time on non-game wildlife such as bats, bald eagles and black bears. We also promised to buy more land so people had more places to watch birds, hike, camp—and hunt and fish. People valued these promises so much they agreed to help pay for them. They set up a conservation sales tax, and we've been making Missouri more natureful ever since.



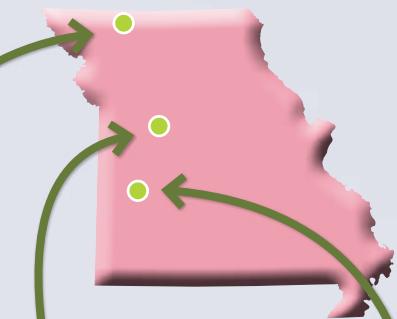
see the **Show-Me state** in its most **natural state.**

Back in 1977, forward-thinking folks from the Conservation Department and the Department of Natural Resources partnered up to save the best—and often last—examples of what Missouri might have looked like when Lewis and Clark paddled through in 1804. The “natural areas” they set up are some of the wildest, most pristine nooks and crannies in the Show-Me State. Here are five breathtaking ones to explore.



Stop and Smell the Wildflowers.

When covered wagons first crossed Missouri, grasses and wildflowers stretched from one horizon to another across the northern third of the state. But as wagons stopped rolling and settlements sprang up, more and more prairies were plowed under. Today, less than 1 percent of our original prairies remains. But thanks to careful management and restoration by the Conservation Department and other agencies, there are still places to hear prairie chickens boom, wander among head-high grasses, and stop to smell wildflowers. Here are three.



PAWNEE PRAIRIE
CONSERVATION AREA



PAINT BRUSH PRAIRIE
CONSERVATION AREA



TABERVILLE PRAIRIE
CONSERVATION AREA





64

BAG A BUCK.

It's hard to believe, but white-tailed deer were once rare in Missouri. Unregulated hunting killed so many deer that by 1925 only about 400 were left in the state. The newly formed Conservation Department closed deer season in 1938 and began managing habitat and restoring whitetails throughout Missouri. Today, with a population of more than a million deer, hunters can bag a big buck in any county in Missouri.



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GO FISHING!

Whether you're launching a kayak, canoe or johnboat, the Conservation Department has you covered. Find a place to float your boat at mdc.mo.gov/atlas.



65

TAKE A HIKE.

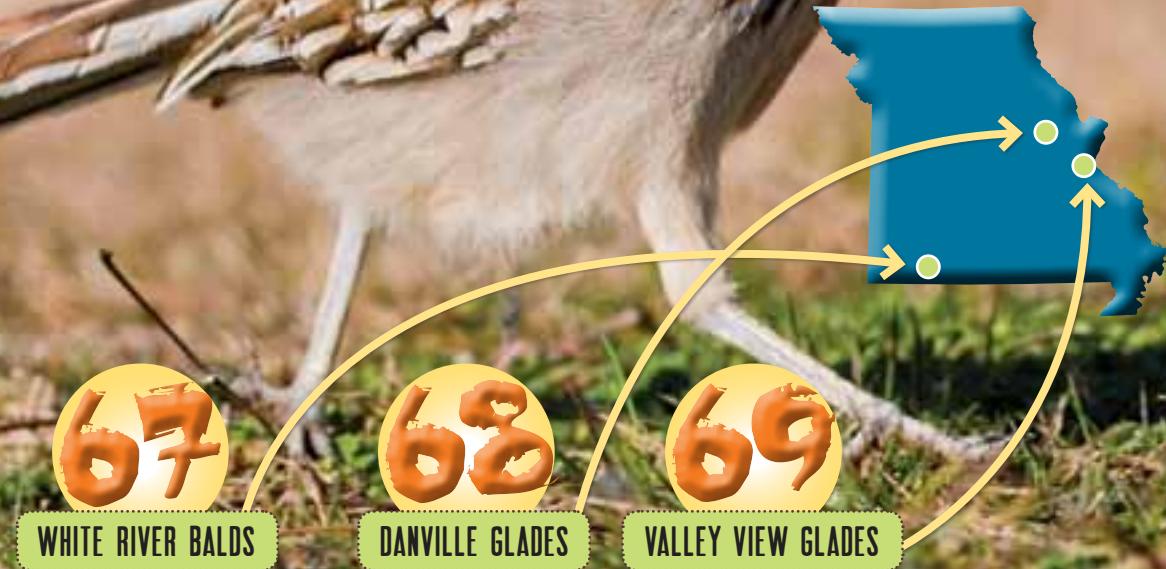
If someone tells you to take a hike, head to a conservation area. About 700 miles of trails zigzag through conservation areas, including nearly 40 miles of the Ozark Trail.



Race a Roadrunner.

If I told you Missouri had deserts full of cactuses, roadrunners and scorpions, you'd think I was crazy. But it's true. Glades are dry, rocky, barren places often found clinging to the sides of south-facing Ozark hills. Why visit a place so desolate and hot? Because the plants and animals there are cool—and found nowhere else in the Show-Me State. So, pack plenty of water and mount an expedition to explore these three mini deserts.

Greater roadrunner



SPOT AN OZARK ENDEMIC.



An endemic (*in-dem-ick*) is a plant or animal found in only one location in the whole wide world. Believe it or not, the Ozarks are packed with nearly 200 endemics. So if you want to see unique creatures such as the Niangua darter (a colorful, minnow-sized fish), Missouri woodland swallowtail (a beautiful butterfly) or St. Francis River crayfish (a lobster-like crawdad), you don't have to travel far—unless you live in France.



SURF...

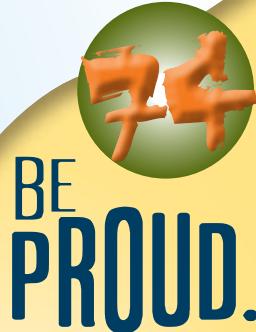
... the Web at
XPLORMO.ORG
or
MDC.MO.GOV



Whether you're interested in creepy-crawlies or cuddly critters, chances are we've written a book or brochure about it. For a list of free publications, visit mdc.mo.gov/node/6248. To buy great books, calendars and DVDs, go to mdcnatureshop.com.



The Conservation Department has a long history of bringing animals back to Missouri, and we're still going at it today. In May 2011, 34 wild elk were released into the rugged Ozark hills of Peck Ranch Conservation Area. Elk once roamed throughout Missouri, but unregulated hunting and habitat destruction erased them from the state by 1865. Biologists expect the newly released elk to multiply, so that soon the eerie bugle of a bull elk will once again be a common sound in the southeastern Ozarks.



There's enough wildlife watchers in Missouri to fill the St. Louis Cardinal's Busch Stadium 47 times. But that's nothing. More than 5 million Missourians think it's important to protect nature. With that kind of support, it's no wonder Missouri's Conservation Department is respected throughout the world.



SUBSCRIBE ONLINE

xplormo.org/node/2618

FREE TO MISSOURI HOUSEHOLDS

What is Conservation's 75th Gift?



To find out:

CUT ALONG THE DOTTED LINE, HOLD THE PAGE UP TO A MIRROR, AND LOOK THROUGH THIS SPACE FROM BEHIND.

Conservation means leaving a future a little better than you found it. So pitch in. Volunteer to clean up streams, plant a tree, or count critters. Study ecology or restore a wetland. Because Missouri conservation will always exist because of you—and the next generation of Missourians.

